What is claimed is:

1. A machine-implemented method, comprising:

receiving one or more key values from a first process that executes in a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance;

selecting, from a plurality of statistical data structures, a set of one or more statistical data structures that are associated with the one or more key values;determining whether any statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the first process executes; and

if a particular statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the first process executes, then sending, to the first process, statistical data that is stored in the particular statistical data structure.

2. The method of claim 1, further comprising:

if no statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the first process executes, then preventing statistical data that is stored in statistical data structures in the set of one or more statistical data structures from being sent to the first process.

3. The method of claim 1, further comprising:

receiving, from a second process, a request to mount a file system;

in response to receiving the request, performing steps comprising:

mounting the file system, thereby producing a mount;

establishing an association between the mount and the particular statistical data structure;

determining in which VOSE of the plurality of VOSEs the second process executes; and

establishing an association between the particular statistical data structure and a VOSE in which the second process executes.

4. The method of claim 1, further comprising:

establishing an association between a central processing unit (CPU) and the particular statistical data structure;

establishing an association between the CPU and a resource pool;

receiving, from a second process, a request to bind a particular VOSE to the resource pool; and

in response to receiving the request, establishing an association between the particular statistical data structure and the particular VOSE.

5. The method of claim 1, further comprising:

receiving the one or more key values from a second process that executes in a global operating system environment (OSE) that comprises the plurality of VOSEs;

determining whether any statistical data structure in the set of one or more statistical data structures is associated with the global OSE; and

if the particular statistical data structure is associated with the global OSE, then sending, to the second process, statistical data that is stored in the particular statistical data structure.

6. The method of claim 1, further comprising:

receiving the one or more key values from a second process that executes in a second VOSE of the plurality of VOSEs;

determining whether any statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the second process executes; and

if the particular statistical data structure is associated with a VOSE in which the second process executes, then sending, to the second process, statistical data that is stored in the particular statistical data structure.

7. The method of claim 1, further comprising:

receiving a request to create a second VOSE within the plurality of VOSEs;

in response to receiving the request to create the second VOSE, creating a second statistical data structure; and

establishing an association between the second statistical data structure and a first set of key values that typically are associated with a statistical data structure in a non-partitioned OSE;

wherein all statistical data requests that are (a) received by processes executing within the second VOSE and (b) for statistical data that is associated with the first set of key values cause the operating system kernel instance to return statistical data that pertains only to the second VOSE.

8. The method of claim 7, further comprising:

receiving a request to create a third VOSE within the plurality of VOSEs;

in response to receiving the request to create the third VOSE, creating a third statistical data structure; and

establishing an association between the third statistical data structure and a third set of key values that typically are associated with a statistical data structure in a non-partitioned OSE;

wherein all statistical data requests that are (a) received by processes executing within the third VOSE and (b) for statistical data that is associated with the second set of key values cause the operating system kernel instance to return statistical data that pertains only to the third VOSE;

wherein the third VOSE is separate from the second VOSE; and

wherein the third statistical data structure is separate from the second statistical data structure.

9. A machine-implemented method, comprising:

receiving, from a process that executes in a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance, a request for a list of statistical data structures;

determining in which VOSE of the plurality of VOSEs the process executes;

selecting, from a plurality of statistical data structures, a set of one or more statistical data structures that are associated with a VOSE in which the process executes; and

sending, to the process, a list of statistical data structures that are in the set of one or more statistical data structures.

10. A machine-readable medium, comprising:

instructions for causing one or more processors to receive one or more key values from a first process that executes in a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance;

instructions for causing one or more processors to select, from a plurality of statistical data structures, a set of one or more statistical data structures that are associated with the one or more key values;

instructions for causing one or more processors to determine whether any statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the first process executes; and

instructions for causing one or more processors to send, to the first process, statistical data that is stored in a particular statistical data structure in the set of one or more statistical data structures, if the particular statistical data structure is associated with a VOSE in which the first process executes.

11. The machine-readable medium of claim 10, further comprising:

instructions for causing one or more processors to prevent statistical data that is stored in statistical data structures in the set of one or more statistical data structures from being sent to the first process if no statistical data structure in the set of one or more statistical data structure is associated with a VOSE in which the first process executes.

12. The machine-readable medium of claim 10, further comprising:

instructions for causing one or more processors to receive, from a second process, a request to mount a file system;

instructions for causing one or more processors to execute, in response to receiving the request, instructions comprising:

instructions for causing one or more processors to mount the file system, thereby producing a mount;

instructions for causing one or more processors to establish an association between the mount and the particular statistical data structure;

instructions for causing one or more processors to determine in which VOSE of the plurality of VOSEs the second process executes; and

instructions for causing one or more processors to establish an association between the particular statistical data structure and a VOSE in which the second process executes.

13. The machine-readable medium of claim 10, further comprising:

instructions for causing one or more processors to establish an association between a central processing unit (CPU) and the particular statistical data structure;

instructions for causing one or more processors to establish an association between the CPU and a resource pool;

instructions for causing one or more processors to receive, from a second process, a request to bind a particular VOSE to the resource pool; and

instructions for causing one or more processors to establish an association between the particular statistical data structure and the particular VOSE.

14. The machine-readable medium of claim 10, further comprising:

instructions for causing one or more processors to receive the one or more key values from a second process that executes in a global operating system environment (OSE) that comprises the plurality of VOSEs;

instructions for causing one or more processors to determine whether any statistical data structure in the set of one or more statistical data structures is associated with the global OSE; and

instructions for causing one or more processors to send, to the second process, statistical data that is stored in the particular statistical data structure, if the particular statistical data structure is associated with the global OSE.

15. The machine-readable medium of claim 10, further comprising:

instructions for causing one or more processors to receive the one or more key values from a second process that executes in a second VOSE of the plurality of VOSEs;

instructions for causing one or more processors to determine whether any statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the second process executes; and

instructions for causing one or more processors to send, to the second process, statistical data that is stored in the particular statistical data structure, if the particular statistical data structure is associated with a VOSE in which the second process executes.

16. The machine-readable medium of claim 10, further comprising:

instructions for causing one or more processors to receive a request to create a second VOSE within the plurality of VOSEs;

instructions for causing one or more processors to create a second statistical data structure in response to receiving the request to create the second VOSE; and

instructions for causing one or more processors to establish an association between the second statistical data structure and a first set of key values that typically are associated with a statistical data structure in a non-partitioned OSE;

wherein all statistical data requests that are (a) received by processes executing within the second VOSE and (b) for statistical data that is associated with the first set of key values cause the operating system kernel instance to return statistical data that pertains only to the second VOSE.

17. The machine-readable medium of claim 16, further comprising:

instructions for causing one or more processors to receive a request to create a third VOSE within the plurality of VOSEs;

instructions for causing one or more processors to create a third statistical data structure in response to receiving the request to create the third VOSE; and

instructions for causing one or more processors to establish an association between the third statistical data structure and a third set of key values that typically are associated with a statistical data structure in a non-partitioned OSE;

wherein all statistical data requests that are (a) received by processes executing within the third VOSE and (b) for statistical data that is associated with the second set of key values cause the operating system kernel instance to return statistical data that pertains only to the third VOSE;

wherein the third VOSE is separate from the second VOSE; and

wherein the third statistical data structure is separate from the second statistical data structure.

18. A machine-readable medium, comprising:

instructions for causing one or more processors to receive, from a process that executes in a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance, a request for a list of statistical data structures;

instructions for causing one or more processors to determine in which VOSE of the plurality of VOSEs the process executes;

instructions for causing one or more processors to select, from a plurality of statistical data structures, a set of one or more statistical data structures that are associated with a VOSE in which the process executes; and

instructions for causing one or more processors to send, to the process, a list of statistical data structures that are in the set of one or more statistical data structures.

19. An apparatus, comprising:

a mechanism for receiving one or more key values from a first process that executes in a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance;

a mechanism for selecting, from a plurality of statistical data structures, a set of one or more statistical data structures that are associated with the one or more key values;

a mechanism for determining whether any statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the first process executes; and

a mechanism for sending, to the first process, statistical data that is stored in a particular statistical data structure in the set of one or more statistical data structures, if the particular statistical data structure is associated with a VOSE in which the first process executes.

20. The apparatus of claim 19, further comprising:

a mechanism for preventing statistical data that is stored in statistical data structures in the set of one or more statistical data structures from being sent to the first process if no statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the first process executes.

21. The apparatus of claim 19, further comprising:

a mechanism for receiving, from a second process, a request to mount a file system;

a mechanism for performing, in response to receiving the request, steps comprising:

mounting the file system, thereby producing a mount;

establishing an association between the mount and the particular statistical data structure;

determining in which VOSE of the plurality of VOSEs the second process executes; and

establishing an association between the particular statistical data structure and a VOSE in which the second process executes.

22. The apparatus of claim 19, further comprising:

a mechanism for establishing an association between a central processing unit (CPU) and the particular statistical data structure;

a mechanism for establishing an association between the CPU and a resource pool;

a mechanism for receiving, from a second process, a request to bind a particular VOSE to the resource pool; and

a mechanism for establishing an association between the particular statistical data structure and the particular VOSE.

23. The apparatus of claim 19, further comprising:

a mechanism for receiving the one or more key values from a second process that executes in a global operating system environment (OSE) that comprises the plurality of VOSEs;

a mechanism for determining whether any statistical data structure in the set of one or more statistical data structures is associated with the global OSE; and

a mechanism for sending, to the second process, statistical data that is stored in the particular statistical data structure, if the particular statistical data structure is associated with the global OSE.

24. The apparatus of claim 19, further comprising:

a mechanism for receiving the one or more key values from a second process that executes in a second VOSE of the plurality of VOSEs;

a mechanism for determining whether any statistical data structure in the set of one or more statistical data structures is associated with a VOSE in which the second process executes; and

a mechanism for sending, to the second process, statistical data that is stored in the particular statistical data structure, if the particular statistical data structure is associated with a VOSE in which the second process executes.

25. The apparatus of claim 19, further comprising:

a mechanism for receiving a request to create a second VOSE within the plurality of VOSEs;

a mechanism for creating a second statistical data structure in response to receiving the request to create the second VOSE; and

a mechanism for establishing an association between the second statistical data structure and a first set of key values that typically are associated with a statistical data structure in a non-partitioned OSE;

wherein all statistical data requests that are (a) received by processes executing within the second VOSE and (b) for statistical data that is associated with the first set of key values cause the operating system kernel instance to return statistical data that pertains only to the second VOSE.

26. The apparatus of claim 25, further comprising:

a mechanism for receiving a request to create a third VOSE within the plurality of VOSEs;

a mechanism for creating a third statistical data structure in response to receiving the request to create the third VOSE; and

a mechanism for establishing an association between the third statistical data structure and a third set of key values that typically are associated with a statistical data structure in a non-partitioned OSE;

wherein all statistical data requests that are (a) received by processes executing within the third VOSE and (b) for statistical data that is associated with the second set of key values cause the operating system kernel instance to return statistical data that pertains only to the third VOSE;

wherein the third VOSE is separate from the second VOSE; and

wherein the third statistical data structure is separate from the second statistical data structure.

27. An apparatus, comprising:

a mechanism for receiving, from a process that executes in a first virtual operating system environment (VOSE) of a plurality of VOSEs controlled by a single operating system kernel instance, a request for a list of statistical data structures;

a mechanism for determining in which VOSE of the plurality of VOSEs the process executes;

a mechanism for selecting, from a plurality of statistical data structures, a set of one or more statistical data structures that are associated with a VOSE in which the process executes; and

a mechanism for sending, to the process, a list of statistical data structures that are in the set of one or more statistical data structures.